

For these reasons and because Professor Whitman's work became more illuminating as he went on, his family and friends feel that the opportunities so untimely left should be extended to others who wish them. Quarters are also given in the residence alongside the nearly one thousand birds, and Dr. Riddle, now at work with them, will cooperate with the work of others, or assist, or direct, as needed.

The library, which is one of the largest and most complete of biological libraries, is held open for constant use. The volumes are very extensively marked; pencil notes often bringing together from all quarters the various facts bearing on the subject under discussion.—*Science*, N. S., Vol. XXXIV, No. 866, pp. 145, 146, August 4, 1911.

RECENT LITERATURE.

Mathews's Proposed Changes in the Nomenclature of Birds.—

Mr. G. M. Mathews has recently undertaken a revision of the nomenclature¹ of his 'Handlist of the Birds of Australia,' issued in January, 1908. The changes here proposed affect a large number of genera and a considerable number of species, the former including in many instances wide-ranging groups. In the same connection he also discusses incidentally a number of genera that are not Australian. His inquiry has thus a wide scope, and is prosecuted in the hope of increasing stability in nomenclature.

He says (*Emu*, *l. c.*, p. 317): "I have recognized that the only means of attaining finality in the nomenclature is the acceptance of the laws formulated by the International Congress of Zoölogists." In the 'Handlist' he followed Sharpe's 'Handlist of the Genera and Species of Birds,' and thus took the XIIth instead of the Xth edition of Linné's 'Systema Naturæ' as the "commencing point of binomial nomenclature." Many of his present "alterations" are due to this change. Others are due to his rejection of all generic names founded by non-binomial authors, including upward of forty proposed by Brisson. He gives as one of his "general rules": "*Non-binomial authors have been ignored.*" Among

¹ On Some Necessary Alterations in the Nomenclature of Birds, By Gregory M. Mathews. I. *Novitates Zoologicae*, Vol. XVII, Dec., 1910, pp. 492-503; II. *Ibid.*, Vol. XVIII, June, 1911, pp. 1-22.

Alterations in the Nomenclature of 'Hand-list of the Birds of Australia,' By Gregory M. Mathews, F. R. S. E., etc. *The Emu*, Vol. X, April, 1911, pp. 317-326.

Nomenclature of Australian Avifauna. By Gregory M. Mathews. *The Emu*, Vol. XI, July, 1911, pp. 52-58.

other changes, the number of genera is greatly reduced (in the paper in 'The Emu') by omission as unnecessary, and others, as well as many species, as being extralimital. The greater part of the Brissonian genera are retained, but are accredited to later authors. Emended spellings are also now rejected.

In Part I of his paper in the 'Novitates' Mr. Mathews assumed that "binary" as used in the International Code of Nomenclature is synonymous with "binomial." Before the publication of his Part II he had received the 'Opinions rendered by the International Commission on Zoölogical Nomenclature' (Opinions 1-25), from which it became evident to him that "'binary' has an altogether different meaning" from binomial. Instead of accepting, however, the ruling of the Commission on the meaning of its own Code he proceeds to argue that the Commission is wrong and that 'binary,' according to dictionaries, is "absolutely equivalent to binomial," and proceeds to affirm his rejection of Brissonian genera! It is hard to reconcile this action with his repeatedly professed absolute adherence to "the laws formulated by the International Congress of Zoölogists." As a matter of fact, it is perfectly evident that the Commission intentionally employed the term binary for the purpose of conserving genera established by non-binomial authors of dates subsequent to 1758 as shown by their ruling (Opinion 20) on the genera of Gronow, and citation of Brisson under *Strix* (Opinion 16, pp. 33 and 38). Furthermore, these rulings foreshadow that if the genera of Brisson are ever brought before the Commission for arbitration their availability will be sustained.

Mr. Mathews, in ignoring Brisson as an author to be reckoned with, introduces confusion in questions of nomenclature that extend beyond the substitution of later authorities for Brisson's genera, as in the case of *Colymbus* and *Podiceps*, *Catarractes*, *Penguinus* and *Catharacta*; *Glareola* and *Trachelia*; *Carbo* and *Phalacrocorax*; *Hypsibates* and *Himantopus*; *Nisus* and *Accipiter*; *Curvirostra* and *Loxia*. Unfortunately for Mr. Mathews, his statements in regard to Brisson and *Colymbus* are erroneous, for he says: "Brisson independently introduced *Colymbus* for the Grebes: he never subdivided a Linnean genus; he used the same names as Linné, often with different significations, as for instance *Mergus*, which he used for the Divers though Linné had utilized it for the Mergansers." It is quite true that Brisson used a number of Linné's generic names in a different sense from that in which Linné had employed them, as did nearly every systematic writer of the latter half of the eighteenth century. During this period, and even for the quarter century following, each author took the liberty of doing as he pleased in matters of nomenclature; for the happy thought of a "law of priority" had not then taken form. But it is entirely erroneous to assert that Brisson "never subdivided a Linnean genus," for he did it in a large number of cases, intentionally and with good effect, adopting most of them in a restricted sense, but failing to conserve the names of a few of them. If Brisson's genera continue to be used, as they certainly will be, *Podiceps* is properly to be construed as a homonym of

Colymbus (Brisson ex Linné), and *Catarractes*, *Glareola*, *Phalacrocorax*, *Accipiter*, *Strix*, and *Loxia* will continue in use as at present, with the type of *Loxia* as *Loxia curvirostra* Linn., both by restriction (by Brisson) and by tautonymy (through Brisson), under Opinion 16 of the International Zoölogical Commission.

Among other generic names discussed attention may be called to the Linnean names *Charadrius* and *Tringa*. On the basis of tautonymy Mr. Mathews rules that the type of the former is *C. hiaticula* Linn., and of the latter *Tringa ocropus* Linn. If these premises be granted *Charadrius* will replace *Ægialitis* Boie, and *Pluvialis* (authority Brisson, not Schæffer) will replace *Charadrius* of authors; *Tringa* will replace *Helodromas* Kaup, and *Canutus* Brehm will replace *Tringa* of authors. The types of both *Charadrius* and *Tringa* were left in abeyance in Opinion 16 of the International Zoölogical Commission.

Mr. Mathews considers that differences in the gender endings in generic names, as *-a* and *-us*, *-us* and *-um*, etc., do not require the rejection of names otherwise identical, and he would thus employ *Heteroscelus* Baird in place of *Heteractitis* Stejneger, and *Oxyura* in place of *Erismatura*, but in this latter case he states further that *Cerconectes* Wagler "appears to have [slight] priority" over *Erismatura*. *Marila* Oken is rejected in favor of *Nyroca* Fleming, on the assumption that Oken's bird genera of 1817 are untenable.

Enanthe Vieillot is accepted for the Wheatears in place of *Saricola* on the ground that the type of *Enanthe* rested on tautonymy (*Motacilla ananthe* Linn.) before a type was fixed for *Motacilla*. *Conurus* Kuhl is rejected because "not proposed generically," but merely as the name of a section, Mr. Mathew stating that he refuses "to accept names simply proposed sectionally as of their sectional date" — implying a distinction between section and subgenus, or other subgeneric divisions not definitely indicated as to grade. *Macrorhamphus* Forster is stated to be antedated by *Macrorhamphus* Fisher, which unfortunately is the case.

Chelidon Forster replaces (we believe properly) *Hirundo* auct. nec Linné; *Aluco* Fleming is said to be preoccupied by *Aluco* Link, and that *Tyto* Billberg (not *Tyta* Billberg of earlier date) or *Hybris* Nitzsch is available in its place.

Lack of space forbids mention of many other interesting rulings, some of which appear well-founded while others seems to invite further research.

Various new names, both generic and specific, are given to replace names considered untenable.

As is evident from the foregoing, Mr. Mathews's paper 'On some necessary Alterations in the Nomenclature of Birds,' demands serious consideration, containing, as it does, the results of much research, among its important features (in Part II) being the record from authentic sources of the dates of publication of various works issued in parts or in a series of volumes, as Lesson's 'Illustrations Zoologiques,' his 'Traité d'Ornithologie,' and 'Centurie de Zoologie'; of 'Cuvier's Le Règne Animal,'

and of Vieillot's contributions to the 'Nouveau Dictionnaire d'Histoire Naturelle.'

His first-cited paper in 'The Emu' (*l. c.*) gives the results of his nomenclatorial investigations as relating to Australian birds, with, in addition, his views as to the genera to be recognized, and the eliminations of extralimital genera and species. His second paper in 'The Emu' (*l. c.*) gives an explanation of the nomenclature and principles followed by him in the previous papers, for the benefit especially of Australian ornithologists. In this paper he states clearly why the changes he has proposed are necessary. The current nomenclature of Australian birds, being, like his own 'Handlist of Australian Birds,' that of Sharpe's British Museum 'Handlist,' is at many points not in conformity with the now generally accepted International Code of Zoölogical Nomenclature, which he has now adopted. He further makes a strong plea for the recognition of subspecies and the use of trinomial nomenclature, neither of which appear to have yet found much favor with Australian ornithologists. He also explains and advocates the determination of genotypes by "virtual tautonymy," and finally gives his reasons for his extensive reduction in the number of genera he adopts, citing especially *Charadrius* and *Tringa* and their modern subdivisions in illustration. We believe that in this extensive lumping of genera he will not win a large following. A quarter of a century ago the American Ornithologists' Union Committee on Nomenclature took the same view, and reduced a large number of then current genera to subgenera, which, some twenty years later, this same Committee began gradually to reinstate as full genera until in 1910, in the third edition of its Check-List of North American Birds, nearly all the previously rejected genera were reinstated. The Committee's action in 1885 in this matter failed to receive the approval of ornithologists at large, and we feel quite sure that in this respect history will again repeat itself, and that Mr. Mathews and his friend Dr. Hartert will find themselves in a small minority not only in the lumping of genera but in the rejection of Brissonian generic names.—J. A. A.

Hancock's 'Nature Sketches in Temperate America.'—As shown by the full title,¹ this book deals with outdoor life from the standpoint of ecology and evolution, as further indicated by the following transcript of the section headings: I. Evolution and Natural Selection (pp. 1-24). II. Adaptations in Animals and Plants, with examples (pp. 25-64). III. Protective Resemblance, with examples (pp. 65-114). IV. Mimicry, with examples (pp. 115-133). V. Warning Colors, Terrifying Markings, and other Protective Devices, with examples (pp. 135-164). VI. Animal Behavior, with examples (pp. 165-267). VII. General

¹ Nature Sketches | in | Temperate America | A series of sketches and a popular account | of Insects, Birds, and Plants, treated | from some aspects of their | Evolution and Ecological | Relations | By | Joseph Lane Hancock | M. D., F. E. S. | [illustration]. With two hundred and fifteen original | illustrations in the text, and twelve colored plates by the author | Chicago | A. C. McClurg & Co. | 1911.—Svo, pp. xviii + 451. \$2.75 net.